

STATEMENT OF THE CLAIMS

1-15. (cancelled)

16. (new) A fall arrest system for use with a fall arrest device, the fall arrest system comprising:

an upper anchor point secured in a fixed position;

a first energy absorbing means coupled to said upper anchor point;

a lower anchor point secured in a fixed position vertically below said upper anchor point and said first energy absorbing means; and

a cable extending vertically between said first energy absorbing means and said lower anchor point, wherein said upper anchor point and said lower anchor point exert opposed tensile forces that are imparted on said cable extending between said first energy absorbing means and said lower anchor point such that said cable is pre-tensioned,

wherein said first energy absorbing means is connected to said cable and controls a shock load applied to said upper anchor point resulting from forces applied by the fall arrest device to said cable during a fall arrest event.

17. (new) A fall arrest system according to claim 16, further comprising:

a second energy absorbing means configured to couple to the fall arrest device and control a load applied to a user during said fall arrest event.

18. (new) A fall arrest system according to claim 16, wherein:

said lower anchor point includes a slip element configured to allow upward movement of said cable relative to said lower anchor point.

19. (new) A fall arrest system according to claim 16, wherein:

said lower anchor point is deformable.

20. (new) A fall arrest system according to claim 16, wherein:

said cable has an upper end and a lower end, said upper anchor point is operably disposed at said upper end, and said lower anchor point is operably disposed at said lower end.

21. (new) A fall arrest system according to claim 16, wherein:

the fall arrest device is configured for movement along said cable.

22. (new) A fall arrest system according to claim 16, further comprising:

at least one cable guide.

23. (new) A fall arrest system according to claim 16, further comprising:

a third energy absorbing means coupled to and operably disposed adjacent said lower anchor point and connected to said cable, wherein said third energy absorbing means also controls said shock load applied to said upper anchor point resulting from forces applied by the fall arrest device to said cable during said fall arrest event.

24. (new) A fall arrest system according to claim 16, wherein:

said first energy absorbing means is resilient.

25. (new) A fall arrest system according to claim 25, wherein:

said first energy absorbing means is a spring.

26. (new) A fall arrest system according to claim 16, wherein:

said energy absorbing means includes a plastically deformable element.

27. (new) A fall arrest system according to claim 16, wherein:

said first energy absorbing means is configured to absorb standing wave forces between said fixed upper and lower anchor points during said fall arrest event.

28. (new) A fall arrest system for use with a fall arrest device, the fall arrest system comprising:

an upper anchor point secured in a fixed position;

a first energy absorbing means coupled to said upper anchor point;

a lower anchor point secured in a fixed position vertically below said upper anchor point and said first energy absorbing means; and

a cable extending vertically between said first energy absorbing means and said lower anchor point, wherein said upper anchor point and said lower anchor point exert

opposed tensile forces that are imparted on said cable extending between said first energy absorbing means and said lower anchor point such that said cable is pre-tensioned; and

a second energy absorbing means coupled to and operably disposed adjacent said lower anchor point and connected to said cable,

wherein said first energy absorbing means and said second energy absorbing means are connected to said cable and control a shock load applied to said upper anchor point resulting from forces applied by the fall arrest device to said cable during a fall arrest event.

29. (new) A fall arrest system according to claim 28, wherein:

said first energy absorbing means and said second energy absorbing means are configured to absorb standing wave forces between said fixed upper and lower anchor points during said fall arrest event.

30. (new) A fall arrest system according to claim 28, wherein:

at least one of said first energy absorbing means and said second energy absorbing means includes a plastically deformable element.

31. (new) A fall arrest system comprising:

an upper anchor point secured in a fixed position;

a first energy absorbing means coupled to said upper anchor point;

a lower anchor point secured in a fixed position vertically below said upper anchor point and said first energy absorbing means; and

a cable extending vertically between said first energy absorbing means and said lower anchor point, wherein said upper anchor point and said lower anchor point exert opposed tensile forces that are imparted on said cable extending between said first energy absorbing means and said lower anchor point such that said cable is pre-tensioned,

wherein said first energy absorbing means comprises a plastically deformable wound coil element configured to unwind and extend in plastic deformation when deployed to absorb energy and control a shock load applied to said upper anchor point resulting from forces applied by the fall arrest device to said cable during a fall arrest event.